



THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Frederic Mikulec et al.

Art Unit : 1773

Serial No. : 09/625,861

Examiner : H. Le

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Title : TELLURIUM-CONTAINING NANOCRYSTALLINE MATERIALS

Commissioner for Patents

Washington, D.C. 20231

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AMENDMENT

In response to the action mailed August 22, 2002 ("Office Action"), Applicants submit the following remarks. Please amend the application as follows:

In the claims:

Please amend claims numbered 12-18, and 36-62 as follows:

~~1~~²12. (Amended) A population of nanocrystallites comprising a plurality of nanocrystallites, each nanocrystallite including:

a nanocrystalline core comprising MTe, wherein M is selected from the group consisting of Cd, Zn, Mg, and Hg; and

an overcoating of a semiconductor material on a surface of the core,

wherein the plurality of cores is monodisperse.

~~2~~³13. (Amended) The population according to claim ~~12~~¹, wherein each nanocrystallite photoluminesces with a quantum efficiency of at least 20%.--

~~3~~⁴14. (Amended) The population according to claim ~~12~~¹, wherein each nanocrystallite photoluminesces with a quantum efficiency of at least 40%.--

~~4~~⁵15. (Amended) The population according to claim ~~12~~¹, wherein each nanocrystallite photoluminesces with a quantum efficiency of at least 60%.--

~~5~~⁶16. (Amended) The population according to claim ~~12~~¹, wherein each nanocrystallite photoluminesces with a quantum efficiency of at least 70%.--

~~6~~⁷17. (Amended) The population according to claim ~~12~~¹, wherein the plurality of cores has a size distribution having a standard deviation no greater than 15% of a mean diameter of the population.--

~~7~~⁸18. (Amended) The population according to claim ~~12~~¹, wherein each core comprises CdTe.--

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